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NEWS 14 Oct 09 Korean abstracts now included in Derwent World Patents  
Index  
NEWS 15 Oct 09 Number of Derwent World Patents Index updates increased  
NEWS 16 Oct 15 Calculated properties now in the REGISTRY/ZREGISTRY File  
NEWS 17 Oct 22 Over 1 million reactions added to CASREACT  
NEWS 18 Oct 22 DGENE GETSIM has been improved  
NEWS 19 Oct 29 AAASD no longer available  
NEWS 20 Nov 19 New Search Capabilities USPATFULL and USPAT2  
NEWS 21 Nov 19 TOXCENTER(SM) - new toxicology file now available on STN  
NEWS 22 Nov 29 COPPERLIT now available on STN  
NEWS 23 Nov 29 DWPI revisions to NTIS and US Provisional Numbers  
NEWS 24 Nov 30 Files VETU and VETB to have open access  
NEWS 25 Dec 10 WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002  
NEWS 26 Dec 10 DGENE BLAST Homology Search  
NEWS 27 Dec 17 WELDASEARCH now available on STN  
NEWS 28 Dec 17 STANDARDS now available on STN  
NEWS 29 Dec 17 New fields for DPCI  
NEWS 30 Dec 19 CAS Roles modified  
NEWS 31 Dec 19 1907-1946 data and page images added to CA and Caplus  
  
NEWS EXPRESS August 15 CURRENT WINDOWS VERSION IS V6.0c,  
CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP),  
AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001  
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FILE 'HOME' ENTERED AT 07:03:58 ON 21 DEC 2001

=> file fsta frosti

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.15	0.15

FILE 'FSTA' ENTERED AT 07:04:12 ON 21 DEC 2001  
COPYRIGHT (C) 2001 International Food Information Service

FILE 'FROSTI' ENTERED AT 07:04:12 ON 21 DEC 2001  
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=> s sorbitol

L1 3729 SORBITOL

=> s erythritol

L2 451 ERYTHRITOL

=> s coat?

L3 21130 COAT?

=> s l1 and l2 and l3

L4 11 L1 AND L2 AND L3

=> d 1-11 all

L4 ANSWER 1 OF 11 FSTA COPYRIGHT 2001 IFIS  
AN 95(05):L0037 FSTA FS FSTA  
TI [Process for manufacture of hard dragees without sugar, and products made by this process.]  
AU Serpelloni, M.; Ribardeau-Dumas, G.  
CS Roquette Freres SA  
SO French Patent Application  
PI FR 2705207 A1 1994  
PRAI FR 93-05917 17 May 1993  
DT Patent (Patent)  
LA French  
AB A process for manufacture of sugar-free hard dragees is based on coating a product with a syrup containing .gtoreq.90% polyol (sorbitol, maltitol, mannitol, xylitol, erythritol or isomalt) followed by application of the same polyol (purity >90%) in powder form. No forced drying is needed. (AJDW)  
CC L (Sugars, Syrups and Starches)  
CT Patents; Polyols; Sugar confectionery; DRAGEES; Carbohydrates; Alcohols

L4 ANSWER 2 OF 11 FSTA COPYRIGHT 2001 IFIS  
AN 76(06):H1084 FSTA FS FSTA  
TI Use of polyols as stationary phases for the gas chromatographic separation

of volatile compounds from excess amounts of ethanol.

AU Verachtert, H.; Oevelen, D. van; Bevers, J.

CS Lab. of Ind. Microbiol. & Biochem., Univ. of Leuven, Kardinaal  
Mercierlaan  
92, Heverlee-Louvain 3030, Belgium

SO Journal of Chromatography, (1976) 117 (2) 295-304, 10 ref.

DT Journal

LA English

AB **Erythritol**, ribitol, arabitol, xylitol, mannitol, dulcitol and **sorbitol** were studied as stationary phases for the separation of volatile compounds (volatiles) normally present in alcoholic beverages. Excellent separations of most of the volatiles from each other, and especially from the excess amounts of ethanol that are generally present, were obtained with 2- and 5-m glass columns filled with Chromosorb P **coated** with a polyol. A method is presented that permits analysis of beer volatiles, from acetaldehyde up to phenethyl alcohol, in about 90 min. This method includes direct injection of beer samples into the columns. After several months no perceptible changes in column performance were observed, indicating that a rapid and cheap method for analysis of beer volatiles is now available. Wines and spirits have been analysed by the same method. (AS)

CC H (Alcoholic and Non-Alcoholic Beverages)

IT Gas chromatography; alcoholic beverages, volatile compounds detn. in

IT Volatile compounds; alcoholic beverages, volatile compounds detn. in

IT Beer (analysis); volatile compounds detn. in beer

IT Spirits; volatile compounds detn. in spirits

IT Wines (analysis); volatile compounds detn. in wines

L4 ANSWER 3 OF 11 FROSTI COPYRIGHT 2001 LFRA

AN 565965 FROSTI

TI Sugar-free hard **coating** prepared from liquid mixture of **erythritol** and **sorbitol**.

IN de Meuter P.; Adolphine E.; Alexandre B.; Christiane R.

PA Cerestar Holding BV

SO Japanese Patent Application

PI JP 2001045976 A 20010220

AI 20000602

PRAI United Kingdom 19990603

NTE 20010220

DT Patent

LA Japanese

SL English

AB A sugar-free hard confectionery **coating** is disclosed that is claimed to provide good crunchiness. The **coating** is composed of a mixture of **erythritol** and **sorbitol** with a binder, dispersing agent and colorant.

CT **COATINGS**; CONFECTIONERY; CONFECTIONERY **COATINGS**; HARD **COATINGS**; JAPANESE PATENT; PATENT; POLYOLS; SUGAR FREE **COATINGS**; SWEETENERS

DED 19 Oct 2001

L4 ANSWER 4 OF 11 FROSTI COPYRIGHT 2001 LFRA

AN 543772 FROSTI

TI Sugar-free hard **coatings** prepared from liquid mixtures of **erythritol** and **sorbitol**.

IN De Moutier P.A.E.; Alexandre B.C.R.

PA Cerestar Holdings BV

SO European Patent Application

PI EP 1057414 A1 20001206

AI 20000601

PRAI United Kingdom 19990603

NTE 20001206

DT Patent

LA English

SL English  
 AB A sugar-free hard **coating** useful for chewing gum and other confectionery products has good crispness and/or crunchiness. It is prepared from a syrup comprising a mixture of **sorbitol** and **erythritol**.  
 CT CHEWING GUM; **COATINGS**; CONFECTIONERY; CONFECTIONERY **COATINGS**; **ERYTHRITOL**; EUROPEAN PATENT; HARD **COATINGS**; PATENT; POLYOLS; **SORBITOL**; SUGAR CONFECTIONERY; SUGAR FREE **COATINGS**  
 DED 2 Feb 2001

L4 ANSWER 5 OF 11 FROSTI COPYRIGHT 2001 LFRA  
 AN 522797 FROSTI  
 TI Process for **coating** edible, chewable, or pharmaceutical cones with a **coating**.  
 IN Rosenplenter K.C.  
 PA Cerestar Holding BV  
 SO United States Patent  
 PI US 6017567 B 20000125  
 AI 19970613  
 PRAI United Kingdom 19960618  
 NTE 20000125  
 DT Patent  
 LA English  
 SL English  
 AB This sugar-free hard **coating** has chewable core material (chewing gum, candy) **coated** in a **sorbitol** syrup in a rotating drum. This is then **coated** again with a crystalline polyol consisting of at least one of the following - isomaltol, xylitol, **erythritol**. The two **coatings** may be repeated to obtain the desired thickness and crunchiness.  
 CT CHEWING GUM; **COATING**; **COATINGS**; CONFECTIONERY; CONFECTIONERY **COATINGS**; EMULSIFIERS; HARD **COATINGS**; HUMECTANTS; PATENT; POLYOLS; **SORBITOL**; SUGAR CONFECTIONERY; SUGAR FREE **COATINGS**; SURFACTANTS; SWEETENERS; US PATENT  
 DED 8 Jun 2000

L4 ANSWER 6 OF 11 FROSTI COPYRIGHT 2001 LFRA  
 AN 495994 FROSTI  
 TI Manufacture of dietary fibre containing low-calorie food.  
 IN Mogi K.; Kiuchi Y.  
 PA Horiuchi Shokuhin Kogyo KK  
 SO Japanese Patent Application  
 PI JP 10248528 A 19980922  
 AI 19970312  
 NTE 19980922  
 DT Patent  
 LA Japanese  
 SL English  
 AB A low-calorie candy is provided for ingesting dietary fibres. The candy is obtained by forming a **coating** layer of maltitol, **erythritol**, xylitol and/or **sorbitol**, inside which powdered konnyaku is distributed and contained around the core of jelly or gummy candy.  
 CT CANDY; **COATINGS**; CONFECTIONERY; DIETARY FIBRES; EMULSIFIERS; **ERYTHRITOL**; HEALTHY CONFECTIONERY; HUMECTANTS; JAPANESE PATENT; KONNYAKU; LOW CALORIE CONFECTIONERY; LOW CALORIE FOODS; MALTITOL; PATENT;  
 POLYOLS; **SORBITOL**; SURFACTANTS; SWEETENERS; XYLITOL  
 DED 10 Jun 1999

L4 ANSWER 7 OF 11 FROSTI COPYRIGHT 2001 LFRA  
 AN 477412 FROSTI  
 TI Sugar-free hard **coating** and its production.  
 IN Rosenplenter K.C.

PA Cerestar Holding BV  
 SO Japanese Patent Application  
 PI JP 10056986 A 19980303  
 AI 19970618  
 PRAI United Kingdom 19960619  
 NTE 19980303  
 DT Patent  
 LA Japanese  
 SL English  
 AB This sugar-free hard **coating** has chewable core material (chewing gum, candy) **coated** in a **sorbitol** syrup in a rotating drum. This is then **coated** again with a crystalline polyol consisting of at least one of the following - isomaltol, xylitol, **erythritol**. The two **coatings** may be repeated to obtain the desired thickness and crunchiness.  
 CT CHEWING GUM; **COATING**; **COATINGS**; CONFECTIONERY; CONFECTIONERY **COATINGS**; EMULSIFIERS; HARD **COATINGS**; HUMECTANTS; JAPANESE PATENT; PATENT; POLYOLS; **SORBITOL**; SUGAR CONFECTIONERY; SUGAR FREE **COATINGS**; SURFACTANTS; SWEETENERS  
 DED 16 Oct 1998  
  
 L4 ANSWER 8 OF 11 FROSTI COPYRIGHT 2001 LFRA  
 AN 476315 FROSTI  
 TI Lite from starch.  
 AU Rapaille A.  
 SO Zeitschrift fur die Lebensmittelwirtschaft, 1998, (July-August), 49 (7-8), 16-19 (4 ref.)  
 ISSN: 0772-5733  
 DT Journal  
 LA German  
 AB Maltodextrine Light MD01970 has a low DE-value, good water solubility, and low viscosity. Polyols have a high heat stability and high viscosity, and are strong sweeteners. Polyols are also suitable for diabetics, and cause less caries. **Sorbitol** can be used for **coating** sugar-free chewing gum, whilst maltitol is particularly suitable for boiled sweets and chewing gum. A mixture of polyols and maltodextrin is suitable for the production of low-calorie baked goods. **Erythritol** is a biotechnologically produced polyol. It is a monosaccharide with moderate solubility, a sweetening power of 60-70%, and high heat and acid stability. Currently, its use is permitted only in Japan.  
 SH CONFECTIONERY  
 CT ADDITIVES; BAKERY PRODUCTS; CHEWING GUM; CONFECTIONERY; **ERYTHRITOL**; LITE FOODS; MALTITOL; MALTODEXTRINS; POLYOLS; **SORBITOL**; SUGAR CONFECTIONERY; SWEETENERS  
 DED 22 Sep 1998  
  
 L4 ANSWER 9 OF 11 FROSTI COPYRIGHT 2001 LFRA  
 AN 425410 FROSTI  
 TI Process of sugarless hard **coating** and products obtained therefrom.  
 IN Serpelloni M. Ribadeau-Dumas G.  
 PA Roquette Freres  
 SO United States Patent  
 PI US 5571547 B 19961105  
 AI 19950921  
 PRAI France 19930517  
 NTE 19961105  
 DT Patent  
 LA English  
 SL English  
 AB A process for producing a hard **coating** on confectionery products, nuts, tablets, etc., is disclosed, in which a syrup is applied

containing at least 90% of a polyol (**sorbitol**, maltitol, mannitol, xylitol, **erythritol**, lactitol or isomalt), and a powder containing over 95% of the same polyol is applied. These steps are performed without forced drying.

CT **COATED CONFECTIONERY; COATING; COATINGS;**  
**CONFECTIONERY; CONFECTIONERY COATINGS; POLYOLS; US PATENT**

DED 23 Jan 1997

L4 ANSWER 10 OF 11 FROSTI COPYRIGHT 2001 LFRA  
AN 406411 FROSTI  
TI Production of dehydrated food.  
IN Matsubara H.; Nanbu S.; Kato K.  
PA Towa Chem. Ind. Co. Ltd  
SO Japanese Patent Application  
PI JP 07111863 A 19950502  
AI 19931018  
NTE 19950502  
DT Patent  
LA Japanese  
SL English  
AB A method for preparing a dried food, having the texture and characteristics of a fried food but without the use of oil, is described.  
The method involves heating and drying the food in an aqueous solution containing a sugar alcohol or in a melted sugar alcohol, such as **erythritol**, xylitol, **sorbitol** or mannitol. The food product is then removed from the solution, cooled and **coated** with powdered sugar alcohol. The method is suitable for products such as apples or pears.

SH FRUIT AND VEGETABLE PRODUCTS  
CT APPLES; DRIED FOODS; FRIED FOODS; JAPANESE PATENT; PEARS; PROPERTIES; TEXTURE

DED 18 Apr 1996

L4 ANSWER 11 OF 11 FROSTI COPYRIGHT 2001 LFRA  
AN 367368 FROSTI  
TI Sugar-free, hard-**coating** process and so obtained products.  
IN Serpelloni M.; Ribadeau-Dumas G.  
PA Roquette Freres.  
SO European Patent Application  
PI EP 625311 A1  
DS AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; NL; PT; SE  
AI 19940511  
PRAI France 19930517  
DT Patent  
LA French  
SL French  
AB A sugar-free hard-**coating** process is disclosed, which uses a powdered polyol. The process is claimed to be simpler and faster than prior-art methods. The first stage is to apply a syrup containing at least 90% of a suitable polyol (**sorbitol**, maltitol, mannitol, xylitol, **erythritol**, lactitol or isomalt). The same polyol is then applied in powder form with a purity greater than 95%. The cycle is repeated several times as required, but no forced-air drying is used. Examples are given in which the process was applied to chewing gums. A sensory panel judged the quality of the **coatings** to be superior to that achieved with a conventional process using a considerably greater number of **coating** cycles.

CT **COATED CONFECTIONERY; COATING; COATINGS;**  
**CONFECTIONERY; CONFECTIONERY COATINGS; DRAGEES; PATENTS;**  
**POLYOLS; SUGAR FREE; SUGAR FREE CONFECTIONERY**

DED 16 Mar 1995

=> file uspatall

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.00	15.15

FILE 'USPATFULL' ENTERED AT 07:05:15 ON 21 DEC 2001  
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 07:05:15 ON 21 DEC 2001  
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 14

L5 1373 L4

=> s 15/clm

L6 38 L5/CLM

=> s chewing gum#

L7 5113 CHEWING GUM#

=> s 16 and 17

L8 11 L6 AND L7

=> d 1-11

L8 ANSWER 1 OF 11 USPATFULL  
AN 2001:155472 USPATFULL  
TI Coated **chewing gum** products containing various  
antacids  
IN Zyck, Daniel J., North Riverside, IL, United States  
Greenberg, Michael J., Northbrook, IL, United States  
Barkalow, David G., Deerfield, IL, United States  
Marske, Scott W., LaGrange, IL, United States  
Schnell, Philip G., Downers Grove, IL, United States  
Mazzone, Philip, Griffith, IN, United States  
PI US 2001021403 A1 20010913  
AI US 2000-747323 A1 20001222 (9)  
RLI Continuation-in-part of Ser. No. US 2000-552290, filed on 19 Apr 2000,  
PENDING Continuation of Ser. No. US 1999-389211, filed on 2 Sep 1999,  
ABANDONED  
DT Utility  
FS APPLICATION  
LN.CNT 1048  
INCL INCLM: 426/003.000  
INCLS: 424/439.000; 426/103.000  
NCL NCLM: 426/003.000  
NCLS: 424/439.000; 426/103.000  
IC [7]  
ICM: A23G003-30

L8 ANSWER 2 OF 11 USPATFULL  
AN 2001:155442 USPATFULL  
TI Coated **chewing gum** products containing an acid  
blocker  
IN Zyck, Daniel J., North Riverside, IL, United States  
Greenberg, Michael J., Northbrook, IL, United States  
Barkalow, David G., Deerfield, IL, United States

Marske, Scott W., LaGrange, IL, United States  
 Schnell, Philip G., Downers Grove, IL, United States  
 Mazzone, Philip, Griffith, IN, United States  
 Witkewitz, David L., Bridgeview, IL, United States  
 PI US 2001021373 A1 20010913  
 AI US 2000-748699 A1 20001222 (9)  
 RLI Continuation-in-part of Ser. No. US 2000-552290, filed on 19 Apr 2000,  
 PENDING Continuation of Ser. No. US 1999-389211, filed on 2 Sep 1999,  
 ABANDONED  
 DT Utility  
 FS APPLICATION  
 LN.CNT 1018  
 INCL INCLM: 424/048.000  
 INCLS: 426/003.000; 426/103.000; 514/338.000  
 NCL NCLM: 424/048.000  
 NCLS: 426/003.000; 426/103.000; 514/338.000  
 IC [7]  
 ICM: A61K009-68  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 11 USPATFULL  
 AN 2001:78717 USPATFULL  
 TI Food products containing seamless capsules and methods of making the  
 same  
 IN Kiefer, Jesse John, Belvidere, NJ, United States  
 Glenn, Blake Henderson, Madison, NJ, United States  
 PA Warner-Lambert Company, Morris Plains, NJ, United States (U.S.  
 corporation)  
 PI US 6238690 B1 20010529  
 AI US 1997-828448 19970328 (8)  
 RLI Continuation-in-part of Ser. No. US 1996-686649, filed on 24 Jul 1996  
 Division of Ser. No. US 1995-412672, filed on 29 Mar 1995, now  
 patented,  
 Pat. No. US 5595757, issued on 21 Jan 1997  
 DT Utility  
 FS Granted  
 LN.CNT 695  
 INCL INCLM: 424/439.000  
 INCLS: 424/489.000; 424/463.000; 424/442.000; 424/048.000  
 NCL NCLM: 424/439.000  
 NCLS: 424/048.000; 424/442.000; 424/463.000; 424/489.000  
 IC [7]  
 ICM: A61K047-00  
 EXF 424/456; 424/490; 424/489; 424/90; 424/402.2; 424/402.21  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 11 USPATFULL  
 AN 2001:25472 USPATFULL  
 TI Syrups and comestible coatings made therefrom containing an emulsion  
 IN Richey, Lindell C., Lake Zurich, IL, United States  
 PA Wm. Wrigley Jr. Company, Chicago, IL, United States (U.S. corporation)  
 PI US 6190705 B1 20010220  
 AI US 2000-513718 20000224 (9)  
 RLI Continuation of Ser. No. WO 1997-US15235, filed on 27 Aug 1997  
 DT Utility  
 FS Granted  
 LN.CNT 692  
 INCL INCLM: 426/005.000  
 INCLS: 426/003.000; 426/004.000; 426/302.000; 426/303.000; 426/304.000;  
 426/305.000  
 NCL NCLM: 426/005.000  
 NCLS: 426/003.000; 426/004.000; 426/302.000; 426/303.000; 426/304.000;  
 426/305.000  
 IC [7]  
 ICM: A23A003-30



EXF 426/3; 426/4; 426/5; 426/6; 426/302; 426/303; 426/304; 426/305

L8 ANSWER 5 OF 11 USPATFULL

AN 2000:9558 USPATFULL

TI Process for coating edible, chewable, or pharmaceutical cones with a coating

IN Rosenplenter, Kurt Christian, Alpen, Germany, Federal Republic of  
PA Cerestar Holding B.V., LA Sas van Gent, Netherlands (non-U.S. corporation)

PI US 6017567 20000125

AI US 1997-874631 19970613 (8)

PRAI GB 1996-12821 19960619

DT Utility

FS Granted

LN.CNT 249

INCL INCLM: 426/005.000

INCLS: 426/006.000; 426/303.000; 426/304.000; 426/307.000

NCL NCLM: 426/005.000

NCLS: 426/006.000; 426/303.000; 426/304.000; 426/307.000

IC [6]

ICM: A23G003-30

EXF 426/3; 426/5; 426/302; 426/103; 426/303; 426/6; 426/304; 426/307

L8 ANSWER 6 OF 11 USPATFULL

AN 1999:141362 USPATFULL

TI Coated **chewing gum** product and method of making

IN Greenberg, Michael J., Northbrook, IL, United States

Barkalow, David G., Deerfield, IL, United States

Keck, Hubert, Freiburg-Munzingen, Germany, Federal Republic of

PA Wm. Wrigley Jr. Company, Chicago, IL, United States (U.S. corporation)

PI US 5980955 19991109

AI US 1996-775088 19961230 (8)

DT Utility

FS Granted

LN.CNT 646

INCL INCLM: 426/005.000

INCLS: 426/003.000

NCL NCLM: 426/005.000

NCLS: 426/003.000

IC [6]

ICM: A23G003-30

EXF 426/3; 426/5; 426/6

L8 ANSWER 7 OF 11 USPATFULL

AN 1999:72301 USPATFULL

TI **Chewing gum** compositions containing erythritol and a moisture binding agent

IN Record, David W., River Forest, IL, United States

McGrew, Gordon N., Evanston, IL, United States

Yatka, Robert J., Orland Park, IL, United States

PA Wm. Wrigley Jr. Company, Chicago, IL, United States (U.S. corporation)

PI US 5916606 19990629

WO 9508928 19950406

AI US 1996-619574 19960321 (8)

WO 1994-US11005 19940930

19960321 PCT 371 date

19960321 PCT 102(e) date

PRAI WO 1993-US9354 19930930

DT Utility

FS Granted

LN.CNT 607

INCL INCLM: 426/003.000

NCL NCLM: 426/003.000

IC [6]

ICM: A23G003-30

EXF 426/3; 426/4; 426/5; 426/6

L8 ANSWER 8 OF 11 USPATFULL

AN 97:80959 USPATFULL

TI Polyol coated **chewing gum** having improved shelf life  
and method of making

IN Reed, Michael A., Merrillville, IN, United States  
Richey, Lindell C., Lake Zurich, IL, United States  
Hook, Jeffrey S., Berwyn, IL, United States  
Yatka, Robert J., Orland Park, IL, United States  
Tyrpin, Henry T., Midlothian, IL, United States  
Broderick, Kevin B., Berwyn, IL, United States  
Meyers, Marc A., Naperville, IL, United States

PA Wm. Wrigley Jr. Company, Chicago, IL, United States (U.S. corporation)

PI US 5665406 19970909

WO 9507622 19950323

AI US 1995-578608 19951227 (8)

WO 1993-US8730 19930915

19951227 PCT 371 date

19951227 PCT 102(e) date

RLI Continuation-in-part of Ser. No. US 1992-857577, filed on 26 Mar 1992,  
now patented, Pat. No. US 5270061 And a continuation-in-part of Ser.

No.

US 1992-855251, filed on 23 Mar 1992, now patented, Pat. No. US 5248508

DT Utility

FS Granted

LN.CNT 1057

INCL INCLM: 426/005.000

INCLS: 426/006.000

NCL NCLM: 426/005.000

NCLS: 426/006.000

IC [6]

ICM: A23G003-30

EXF 426/3; 426/4; 426/5; 426/6

L8 ANSWER 9 OF 11 USPATFULL

AN 95:114511 USPATFULL

TI Process of sugarless hard coating and products obtained therefrom

IN Serpelloni, Michel, Beuvry les Bethune, France

Ribadeau-Dumas, Guillaume, Lambersart, France

PA Roquette Freres, Lestrem, France (non-U.S. corporation)

PI US 5478593 19951226

AI US 1994-241709 19940512 (8)

PRAI FR 1993-5917 19930517

DT Utility

FS Granted

LN.CNT 534

INCL INCLM: 427/002.140

INCLS: 427/202.000; 426/303.000; 426/304.000; 426/291.000; 426/660.000

NCL NCLM: 427/002.140

NCLS: 426/291.000; 426/303.000; 426/304.000; 426/660.000; 427/202.000

IC [6]

ICM: A23G003-30

ICS: A23B009-14; B05D001-36

EXF 427/2.18; 427/2.23; 427/346; 427/2.14; 427/202; 426/5; 426/303;  
426/304;

426/660; 426/291; 424/440

L8 ANSWER 10 OF 11 USPATFULL

AN 92:86796 USPATFULL

TI Flavor and taste composition for a **chewing gum**

IN Sato, Yoshinori, Saitama, Japan

Suzuki, Yoshihisa, Kanagawa, Japan

Ito, Koji, Saitama, Japan

Shinagawa, Tatsuo, Tokyo, Japan

PA Lotte Company Limited, Tokyo, Japan (non-U.S. corporation)  
 PI US 5156866 19921020  
 AI US 1991-707007 19910529 (7)  
 PRAI JP 1990-141600 19900601  
 DT Utility  
 FS Granted  
 LN.CNT 378  
 INCL INCLM: 426/005.000  
 INCLS: 426/096.000; 426/533.000; 426/534.000; 426/650.000  
 NCL NCLM: 426/005.000  
 NCLS: 426/096.000; 426/533.000; 426/534.000; 426/650.000  
 IC [5]  
 ICM: A23G003-30  
 EXF 426/3-6; 426/96; 426/533; 426/650; 426/534  
  
 L8 ANSWER 11 OF 11 USPATFULL  
 AN 91:68721 USPATFULL  
 TI Stabilized Sweetner Composition  
 IN Cherukuri, Subraman R., Towaco, NJ, United States  
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 Mansukhani, Gul, Staten Island, NY, United States  
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 corporation)  
 PI US 5043169 19910827  
 AI US 1990-530769 19900525 (7)  
 DT Utility  
 FS Granted  
 LN.CNT 560  
 INCL INCLM: 426/005.000  
 INCLS: 426/548.000; 426/658.000; 426/454.000; 426/453.000; 426/099.000;  
 426/096.000  
 NCL NCLM: 426/005.000  
 NCLS: 426/096.000; 426/099.000; 426/453.000; 426/454.000; 426/548.000;  
 426/658.000  
 IC [5]  
 ICM: A23G003-30  
 EXF 426/96; 426/99; 426/548; 426/658; 426/454; 426/453  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 1-11 clms

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 CBIB ----- AN, TI, IN, INA, PA, PAA, PAT, PI, AI, PRAI, DT, FS  
 DALL ----- ALL, delimited for post-processing

FP ----- PI, TI, IN, INA, PA, PAA, PAT, PTERM, DCD, AI, RLI,  
 PRAI, IC, ICM, ICS, INCL, INCLM, INCLS, NCL,  
 NCLM, NCLS, EXF, REP, REN, ARTU, EXNAM, LREP,  
 CLMN, DRWN, AB  
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 FPALL ----- PI, TI, IN, INA, PA, PAA, PAT, PTERM, DCD, AI,  
 RLI, PRAI, IC, ICM, ICS, INCL, INCLM, INCLS, NCL, NCLM,  
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 PARN, SUMM, DRWD, DETD, CLM  
 FPBIB ----- PI, TI, IN, INA, PA, PAA, PAT, PTERM, DCD, AI,  
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 FPG ----- FP plus PAGE.DRAW  
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 HITSTR ---- HIT RN, its text modification, its CA index name, and  
 its structure diagram  
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 IALL ----- ALL, indented with text labels  
 IALLG ----- IALL plus PAGE.DRAW  
 IBIB ----- BIB, indented with text labels  
 IBIB.EX ---- IBIB for original and latest publication  
 IBIBG ----- IBIB plus PAGE.DRAW  
 IMAX ----- MAX, indented with text labels  
 IMAX.EX ---- IMAX for original and latest publication  
 IND ----- INCL, INCLM, INCLS, NCL, NCLM, NCLS, IC, ICM, ICS,  
 EXF, ARTU, OS, CC, SX, ST, IT  
 ISTD ----- STD, indented with text labels  
 KWIC ----- All hit terms plus 20 words on either side  
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 RLI, PRAI, DT, FS, REP, REN, EXNAM, LREP, CLMN, ECL,  
 DRWN, AB, GOVI, PARN, SUMM, DRWD, DETD, CLM, INCL,  
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 without answer number. SCAN must be entered on the  
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 STD.EX ----- STD for original and latest publication  
 TRIAL ----- AN, TI, INCL, INCLM, INCLS, NCL, NCLM, NCLS, IC,  
 ICM, ICS

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L8 ANSWER 1 OF 11 USPATFULL

CLM What is claimed is:

1. A method of making antacid **coated chewing**  
**gum** products comprising the steps of: a) providing  
**chewing gum** cores; b) providing a **coating**  
 syrup comprising: i) a bulk sweetener and ii) a neutralizing antacid  
 suspended in the **coating** syrup; the **coating** syrup  
 containing from about 25% to about 50% by weight of the solids in the  
 syrup of the neutralizing antacid, the neutralizing antacid being  
 selected from the group consisting of aluminum salts, bismuth salts,  
 magnesium salts, sodium bicarbonate, potassium bicarbonate, potassium  
 citrate, sodium potassium tartrate, tricalcium phosphate and mixtures

thereof; and c) applying the **coating** syrup to the cores and drying the syrup to produce a **coating** on the cores.

2. The method of claim 1 wherein the bulk sweetener is a polyol.

3. The method of claim 1 wherein the bulk sweetener is a sugar.

4. The method of claim 3 wherein the polyol is selected from the group consisting of **sorbitol**, xylitol, **erythritol**, maltitol, lactitol, hydrogenated isomaltulose and combinations thereof.

5. The method of claim 1 wherein the neutralizing antacid is selected from the group consisting of carbonate and hydroxide salts of magnesium, aluminum and bismuth.

6. The method of claim 1 wherein the antacid has a median particle size of between about 3 microns and about 75 microns.

7. The method of claim 1 wherein the antacid has a median particle size of between about 3 microns and about 15 microns.

8. The method of claim 1 wherein the **coating** syrup further comprises a binding agent.

9. The method of claim 8 wherein the binding agent is selected from the group consisting of gum arabic, gum talha, guar gum, karaya gum, locust bean gum, alginate gums, xanthan gum, arabinogalactan, cellulose derivatives, vegetable gums, gelatin and mixtures thereof.

10. The method of claim 8 wherein the binding agent comprises at least about 2% of the **coating** syrup.

11. The method of claim 1 wherein the antacid comprises between about 30% and about 40% of the total solids in the **coating** syrup.

12. The method of claim 1 wherein the **coated** products contain 250 to 800 milligrams of antacid per piece.

13. The method of claim 1 wherein the antacid comprises between about 30% and about 40% of the **coating**.

14. The method of claim 1 wherein the **coating** further comprises a high-intensity sweetener.

15. The method of claim 14 wherein the high-intensity sweetener is selected from the group consisting of sucralose, aspartame, N-substituted APM derivatives, salts of acesulfame, alitame, saccharin and its salts, cyclamic acid and its salts, glycyrrhizin, dihydrochalcones, thaumatin, monellin and mixtures thereof.

16. The method of claim 1 wherein the bulk sweetener comprises maltitol.

17. The method of claim 1 wherein the **coating** is sugarless.

18. The method of claim 14 wherein the high-intensity sweetener is applied as part of a different **coating** syrup from the **coating** syrup containing the antacid.

19. The method of claim 14 wherein the high-intensity sweetener comprises acesulfame K.

20. The method of claim 1 wherein a powdered bulk sweetener is applied to the cores after application of the **coating** syrup.

21. The method of claim 1 wherein the **coating** further comprises an acid blocker.

22. The method of claim 21 wherein the acid blocker comprises a histamine H.sub.2 - receptor antagonist.

23. The method of claim 22 wherein the histamine H.sub.2 - receptor antagonist is selected from the group consisting of cimetidine, ranitidine and its active salt, famotidine, nizatidine and mixtures thereof.

24. The method of claim 22 wherein the histamine H.sub.2 - receptor antagonist comprises famotidine.

25. A **chewing gum** product made by the method of claim 1.

26. A method of making antacid **coated chewing gum** products comprising the steps of: a) providing **chewing gum** cores; b) providing a **coating** syrup comprising: i) a bulk sweetener and ii) a neutralizing antacid having a median particle size of at least about 3 microns and being suspended in the **coating** syrup, the **coating** syrup containing from about 25% to about 50% by weight of the solids in the syrup of the neutralizing antacid, the neutralizing antacid being selected from the group consisting of aluminum salts, bismuth salts, magnesium salts, sodium bicarbonate, potassium bicarbonate, potassium citrate, sodium potassium tartrate, tricalcium phosphate and mixtures thereof; c) providing a dry charge material comprising a bulk sweetener; and d) applying the **coating** syrup and dry charge material to the **chewing gum** cores to produce a **coating** on the cores.

27. The method of claim 26 wherein the **coating** comprises about 30% to about 75% maltitol.

28. The method of claim 26 wherein multiple **coats** of **coating** syrup and dry charge material are applied to build up the **coating**.

29. The method of claim 26 wherein the dry charge material and **coating** syrup both include maltitol as the bulk sweetener.

30. A method of delivering an antacid to an individual that provides relief in the gastrointestinal tract comprising the steps of: a) providing **chewing gum** cores; b) providing a **coating** syrup comprising: i) a bulk sweetener and ii) a neutralizing antacid suspended in the **coating** syrup, the **coating** syrup containing from about 25% to about 50% by weight of the solids in the syrup of the neutralizing antacid, the neutralizing antacid being selected from the group consisting of aluminum salts, bismuth salts, magnesium salts, sodium bicarbonate, potassium bicarbonate, potassium citrate, sodium potassium tartrate, tricalcium phosphate and mixtures thereof; c) applying the **coating** syrup to the cores and drying the syrup to produce a **coating** on the cores; and d) chewing the antacid **coated chewing gum** product in the mouth and swallowing the **coating**, the **coating** dispersing and dissolving to provide an antacid in the gastrointestinal tract.

31. The method of claim 1 wherein the antacid is an aluminum salt selected from the group consisting of aluminum sodium carbonate hexitol complex; carbonic acid-aluminum magnesium complex; aluminum hydroxide;

aluminum magnesium silicate; aluminum phosphate; aluminum hydroxide-aluminum carbonate gel; basic aluminum sucrose sulfate complex; dihydroxyaluminum aminoacetate; dihydroxyaluminum sodium carbonate; aluminum magnesium hydroxide monohydrate and mixtures thereof.

32. The method of claim 1 wherein the antacid is a bismuth salt selected from the group consisting of bismuth aluminate, bismuth phosphate, bismuth carbonate, bismuth subcarbonate, bismuth subgallate, bismuth subnitrate and mixtures thereof.

33. The method of claim 1 wherein the antacid is a magnesium salt selected from the group consisting of magnesium carbonate; magnesium hydroxide; magnesium oxide; magnesium peroxide; magnesium phosphate, tribasic; magnesium silicates; magnesium aluminosilicates and mixtures thereof.

L8 ANSWER 2 OF 11 USPATFULL

CLM What is claimed is:

1. A **coated chewing gum** product comprising: a) a **chewing gum** core; and b) a **coating** an said core, the **coating** comprising an acid blocker.
2. The **coated chewing gum** product of claim 1 wherein the acid blocker is selected from the group consisting of histamine H.sub.2- receptor antagonists, gastric proton pump inhibitors and combinations thereof.
3. The **coated chewing gum** product of claim 1 wherein the acid blocker is a histamine H.sub.2- receptor antagonist selected from the group consisting of cimetidine, famotidine, rantidine and its active salt, nizatidine and combinations thereof.
4. The **coated chewing gum** product of claim 1 wherein the acid blocker is a gastic proton pump inhibitor selected from the group consisting of omeprazole, rabeprazole and combinations thereof.
5. The **coated chewing gum** product of claim 1 wherein the **coating** further comprises a neutralizing antacid.
6. The **coated chewing gum** product of claim 1 wherein the acid blocker is selected from the group consisting of cimetidine, ranitidine, nizatidine, famotidine and omeprazole.
7. The **chewing gum** product of claim 1 wherein the acid blocker comprises famotidine and the **coating** comprises about 30% to about 75% maltitol by weight.
8. The **chewing gum** product of claim 1 wherein the acid blocker is present at a level in the **coating** of about 1 mg to about 200 mg per piece of **coated** gum product.
9. A method of making **coated chewing gum** products containing an acid blocker comprising the steps of: a) providing **chewing gum** cores; b) providing a **coating** syrup comprising a bulk sweetener; c) providing an acid blocker; and d) applying the acid blocker and **coating** syrup to the cores and drying the syrup to produce a **coating** on the core, the **coating** containing said acid blocker.

10. The method of claim 9 wherein the bulk sweetener is a polyol.
11. The method of claim 9 wherein the bulk sweetener is a sugar.
12. The method of claim 10 wherein the polyol is selected from the group consisting of **sorbitol**, xylitol, **erythritol**, maltitol, lactitol, hydrogenated isomaltulose and combinations thereof.
13. The method of claim 9 wherein the **coating** further comprises a binding agent.
14. The method of claim 13 wherein the binding agent is selected from the group consisting of gum arabic, gum talha, guar gum, karaya gum, locust bean gum, alginate gums, xanthan gum, arabinogalactan, cellulose derivatives, vegetable gums, gelatin and mixtures thereof.
15. The method of claim 13 wherein the binding agent comprises at least about 2% of the **coating**.
16. The method of claim 9 wherein the acid blocker is selected from the group consisting of cimetidine, ranitidine, nizatidine, famotidine and omeprazole.
17. The method of claim 9 wherein the acid blocker is mixed into the **coating** syrup before the syrup is applied to the cores.
18. The method of claim 9 wherein the **coating** further comprises a high-intensity sweetener.
19. The method of claim 18 wherein the high-intensity sweetener is selected from the group consisting of sucralose, aspartame, N-substituted APM derivatives, salts of acesulfame, alitame, saccharin and its salts, cyclamic acid and its salts, glycyrrhizin, dihydrochalcones, thaumatin, monellin and mixtures thereof.
20. The method of claim 9 wherein the bulk sweetener comprises maltitol.
21. The method of claim 9 wherein the **coating** is sugarless.
22. The method of claim 9 wherein the high-intensity sweetener comprises acesulfame K.
23. The method of claim 9 wherein a powdered sugar or polyol is applied to the cores after application of the **coating** syrup.
24. The method of claim 9 wherein the acid blocker in the **coating** comprises a histamine H.sub.2-receptor antagonist.
25. The method of claim 24 wherein the histamine H.sub.2-receptor antagonist is selected from the group consisting of cimetidine, ranitidine and its active salt, famotidine, nizatidine and mixtures thereof.
26. The method of claim 24 wherein the histamine H.sub.2-receptor antagonist comprises famotidine.
27. The method of claim 23 wherein the acid blocker is mixed with powdered sugar or polyol prior to being applied to the cores.
28. The method of claim 9 wherein the acid blocker is selected from the group consisting of histamine H.sub.2 - receptor antagonists, gastric proton pump inhibitors, and combinations thereof.



29. The method of claim 9 wherein the acid blocker is physically modified prior to being incorporated into the **coating**.

30. A **chewing gum** product made by the method of claim 9.

31. A method of making **coated chewing gum** products containing an acid blocker comprising the steps of: a) providing **chewing gum** cores; b) providing a **coating** syrup comprising a bulk sweetener; c) providing a dry charge material comprising a bulk sweetener and an acid blocker; and d) applying the **coating** syrup and dry charge material to the **chewing gum** cores to produce a **coating** on the cores, the **coating** comprising said acid blocker.

32. The method of claim 31 wherein the **coating** comprises about 30% to about 75% maltitol.

33. The method of claim 31 wherein multiple **coats** of **coating** syrup and dry charge material are applied to build up the **coating**.

34. The method of claim 31 wherein the dry charge material and **coating** syrup both include maltitol as the bulk sweetener.

35. The method of claim 31 wherein the **coating** further comprises calcium carbonate.

36. The method of claim 35 wherein the calcium carbonate is dispersed in the **coating** syrup.

37. The method of claim 31 wherein the acid blocker is selected from the group consisting of cimetidine, ranitidine, nizatidine, famotidine and omeprazole.

38. A method of delivering an acid blocker to an individual that provides relief in the gastrointestinal tract comprising the steps of: a) providing **chewing gum** cores; b) providing a **coating** syrup comprising a bulk sweetener; c) providing an acid blocker; d) applying the acid blocker and **coating** syrup to the cores and drying the syrup to produce a **coating** on the cores, the **coating** containing said acid blocker; and e) chewing the **coated chewing gum** product in the mouth and swallowing the **coating**, the **coating** dispersing and dissolving to provide said acid blocker in the gastrointestinal tract.

39. A method of making **coated chewing gum** products containing an acid blocker comprising the steps of: a) providing **chewing gum** cores; b) providing a **coating** syrup comprising: i) a bulk sweetener and ii) calcium carbonate; c) providing an acid blocker; and d) applying the acid blocker and **coating** syrup to the cores and drying the syrup to produce a **coating** on the cores, the **coating** containing said acid blocker and from about 25% to about 50% calcium carbonate.

40. The method of claim 39 wherein the calcium carbonate comprises between about 25% and about 50% of the total solids in the **coating** syrup.

41. The method of claim 39 wherein the calcium carbonate comprises between about 30% and about 40% of the total solids in the **coating syrup**.

42. The method of claim 9 wherein the acid blocker is physically modified prior to being included in the **chewing gum coating**.

L8 ANSWER 3 OF 11 USPATFULL

CLM What is claimed is:

1. A consumable product comprising seamless capsules having an outer shell and an inner core, said outer shell comprising a carbohydrate in  
a glassy state said glassy state carbohydrate selected from the group consisting of sucrose, glucose, fructose, isomalt, hydrogenated starch hydrolysate, maltitol, lactitol, xylitol, **sorbitol**, **erythritol**, mannitol, and mixtures thereof.
2. The consumable product of claim 1 which is selected from the group consisting of foodstuffs, beverages, and medicament compositions, **chewing gums**, confectionery, and dentifrice compositions.
3. The consumable product of claim 1 wherein said inner core contains a material or a mixture of materials selected from the group consisting  
of flavorants, oil based materials and confectionery fillings.
4. The consumable product of claim 1 wherein the outer shell of said seamless capsule comprises 20 to 80% by weight of the total weight of said seamless capsule and the inner core of said seamless capsule comprises 80 to 20% by weight of the total weight of said seamless capsule.
5. The consumable product of claim 1 wherein the outer shell comprises  
a mixture of isomalt and xylitol.
6. The consumable product of claim 1 wherein the inner core contains at least one flavorant.
7. The consume product of claim 3 wherein the inner core contains an  
oil based material.
8. The consumable product of claim 3 wherein the inner core contains an oil based material and a flavorant.
9. The consumable product of claim 2 comprising a **chewing gum** composition comprising gum base, sugar, flavorant and seamless capsules having an outer shell comprising isomalt and xylitol and an inner core containing at least one of an oil based material and  
a flavorant.
10. The consumable product of claim 2 comprising a sugarless **chewing gum** composition comprising gum base, **sorbitol**, mannitol, a sugar substitute, a flavorant, and seamless capsules having an outer shell comprising isomalt and xylitol and an inner core containing at least one of an oil based material and  
a flavorant.
11. The consumable product of claim 3 wherein the inner core contains a

confectionery filling selected from the group consisting of caramel filling, gummi filling and a hydrophilic syrup or mixtures thereof.

12. The consumable product of claim 11 wherein the outer shell comprises isomalt and xylitol.
13. The consumable product of claim 11 wherein the inner core comprises a caramel filling.
14. The consumable product of claim 11 wherein the inner core comprises a gummi filling.
15. The consumable product of claim 11 wherein the inner core comprises a hydrophilic syrup.
16. The consumable product of claim 2 in the form of a nougat.
17. The consumable product of claim 16 wherein the outer shell comprises isomalt and xylitol.
18. The consumable product of claim 2 in the form of a hard boiled candy.
19. The consumable product of claim 18 wherein the outershell comprises isomalt and xyhtol.
20. The consumable product of claim 2 in the form of a pan **coated** flavor bead composition comprsig said seaniless capsules having a **coating** thereon comprising sucrose, gum, wax, and a flavorant.
21. The consumable product of claim 20 wherein the outer shell comprises isomalt and xylitol.
22. The consumable product of claim 2 in the form of a pressed tablet candy.
23. The consumable product of claim 2 which is a **chewing gum** or is a confectionery selected from the group consisting of nougats, hard boiled candies, pan **coated** flavor beads and pressed tablet candies.

L8 ANSWER 4 OF 11 USPATFULL

CLM What is claimed is:

1. A **coating** syrup for use in forming a **coating** on a comestible, the **coating** syrup comprising: a) a flavor emulsion comprising: i) water, ii) an oil-based flavoring agent and iii) an emulsifier; b) a bulk sweetener; and c) a solvent.
2. The **coating** syrup of claim 1 wherein the solvent comprises water.
3. The **coating** syrup of claim 1 wherein the bulk sweetener is selected from the group consisting of sucrose, dextrose, xylitol, **sorbitol**, maltitol, hydrogenated isomaltulose, lactitol, **erythritol** and mixtures thereof.
4. The **coating** syrup of claim 1 wherein the flavor emulsion further comprises an acid and said emulsifier is selected from the group consisting of gum arabic, gum talha, xanthan gum, carrageenan and

mixtures thereof.

5. The **coating** syrup of claim 4 wherein the acid is selected from the group consisting of citric acid, malic acid, tartaric acid and mixtures thereof.

6. The **coating** syrup of claim 1 wherein the flavoring agent is selected from the group consisting of fruit flavors, spearmint flavor, peppermint flavor and wintergreen flavor.

7. The **coating** syrup of claim 1 wherein the emulsifier is selected from the group consisting of gum arabic, gum talha, xanthan gum, carrageenan and mixtures thereof.

94% 8. The **coating** syrup of claim 1 wherein the flavor emulsion comprises about 1% to about 50% of an emulsifier, about 45% to about water and about 5% to about 30% flavor.

9. An emulsion comprising: a) about 5% to about 30% of an oil-based flavoring agent; b) a food grade acid; c) about 45% to about 94% water; and d) about 1% to about 50% of an emulsifier selected from the group consisting of gum arabic, gum talha, xanthan gum, carrageenan and mixtures thereof.

10. The emulsion of claim 9 wherein the oil based flavoring agent comprises a fruit flavor and the emulsifier comprises gum arabic.

11. A **coated** comestible comprising: a) a core comprising a comestible; and b) a **coating** covering said core comprising: i) a bulk sweetener and ii) an oil-based flavoring agent premixed with water and an emulsifier to form an emulsion.

12. The **coated** comestible of claim 11 wherein the core comprises a **chewing gum** pellet.

13. The **coated** comestible of claim 11 wherein the **coating** comprises layers and the mixture of emulsifier and flavoring agent is in a separate layer from the bulk sweetener.

14. The **coated** comestible of claim 11 wherein the **coating** comprises layers and at least one layer comprises both the mixture of emulsifier and flavoring agent and the bulk sweetener.

15. The **coated** comestible of claim 11 wherein the **coating** further comprises a food grade acid and said emulsifier is selected from the group consisting of gum arabic, gum talha, xanthan gum, carrageenan and mixtures thereof.

16. The **coated** comestible of claim 15 wherein the **coating** comprises layers and the acid and mixture of emulsifier and flavoring agent are in the same layer.

17. The **coated** comestible of claim 16 wherein the acid, mixture of flavor and emulsifier and the bulk sweetener are all in a common layer.

18. The **coated** comestible of claim 11 wherein the **coating** comprises a hard shell **coating**.

19. The **coated** comestible of claim 11 wherein the bulk sweetening agent comprises a sugar sweetener.

20. The **coated** comestible of claim 11 wherein the bulk sweetening agent comprises a sugarless sweetener.

21. The **coated** comestible of claim 11 wherein the **coating** further comprises a high-intensity sweetener.

22. The **coated** comestible of claim 11 wherein the comestible comprises **chewing gum**; the bulk sweetener comprises xylitol; the oil-based flavoring comprises a fruit-flavor; the emulsifier comprises gum arabic; and the **coating** further comprises a food grade acid.

23. A method of forming a **coating** on a comestible comprising the steps of: a) providing a core comprising the comestible; b) providing a solution of a bulk sweetener and a solvent; c) providing an emulsion of an oil-based flavoring agent, water and an emulsifier; d) combining the bulk sweetener solution and the emulsion together and applying the combination to cover the core; and e) drying the solvent to form a dry **coating** on the core.

24. The method of claim 23 wherein the bulk sweetener solution and the emulsion are premixed before being applied to cover the core.

25. The method of claim 23 wherein the bulk sweetener solution and the emulsion are combined as they are applied to the core.

26. The method of claim 23 wherein the bulk sweetener solution is applied to the core and the emulsion is combined with the solution on the core.

27. The method of claim 23 wherein the dry **coating** on the core is formed by applying successive layers of bulk sweetener solution and drying each layer.

28. The method of claim 27 wherein multiple layers of bulk sweetener solution not combined with the emulsion are applied before and after applying the combination of the bulk sweetener solution and the emulsion.

29. The method of claim 23 wherein the emulsion further contains a food grade acid and said emulsifier is selected from the group consisting of gum arabic, gum talha, xanthan gum, carrageenan and mixtures thereof.

30. A method of forming a **coating** on a comestible comprising the steps of: a) providing a core comprising the comestible; b) providing a solution of a bulk sweetener and a solvent; c) providing an emulsion of a food grade acid, water and an emulsifier selected from the group consisting of gum arabic, gum talha, xanthan gum, carrageenan and mixtures thereof; d) combining the bulk sweetener solution and the emulsion together and applying the combination to cover the core; and e) drying the solvent to form a dry **coating** on the core.

31. The method of claim 30 wherein the bulk sweetener is a sugar sweetener.

L8 ANSWER 5 OF 11 USPATFULL

CLM What is claimed is:

1. A process for **coating** edible, chewable or pharmaceutical cores with a **coating** of at least one layer, said process comprising (a) applying a **sorbitol** syrup to a rotating mass of cores; (b) adding a polyol in a crystalline form comprising at least one member selected from the group consisting of xylitol, **erythritol**

, and isomalt to obtain a product; (c) drying the product; and (d) repeating (a)-(c) until the cores have a **coating** with the desired number of layers, the desired thickness, and composition are obtained.

2. The process according to claim 1, wherein (a)-(c) are reiterated between 1 and 100 times.

3. The process according to claim 1, wherein (a)-(c) are reiterated between 1 and 40 times.

4. The process according to claim 1, wherein the **sorbitol** syrup has a **sorbitol**-content of more than 60 weight %.

5. The process according to claim 4, wherein the syrup is applied to said rotating cores at a temperature of 20-60.degree. C.

6. The process according to claim 1, wherein the product is dried using air at a temperature of 15.degree. C.-45.degree. C. and a moisture content of at most 50% relative humidity.

7. A process according to claim 1, wherein said **sorbitol** syrup further comprises a liquid flavoring agent.

is 8. A process according to claim 1, wherein a powdered flavoring agent blended with said at least one polyol, and that polyol-containing blend is used in (b).

9. The process according to claim 1, wherein the polyol comprises at least one selected from the group consisting of xylitol, **erythritol** and isomalt; and wherein the polyol selected in (b) is not identical in each layer.

L8 ANSWER 6 OF 11 USPATFULL

CLM What is claimed is:

1. A **chewing gum** product having a **coating** made from a syrup comprising: a) a primary **coating** material; and b) a poorly water-soluble food acceptable salt having a solubility of between about 0.5 and about 9% in 10.degree. C. water.

2. The product of claim 1 wherein the primary **coating** material is selected from the group consisting of sucrose, maltose, dextrose, xylitol, **sorbitol**, maltitol, mannitol, lactitol, **erythritol**, hydrogenated isomaltulose and combinations thereof.

3. The product of claim 1 wherein the primary **coating** material comprises xylitol.

4. The product of claim 3 wherein the primary **coating** material further comprises another sugar alcohol.

5. The product of claim 1 wherein the poorly water-soluble salt comprises a calcium salt.

6. The product of claim 1 wherein the poorly water-soluble salt comprises a sodium salt.

7. The product of claim 1 wherein the poorly water-soluble salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium maleate, calcium benzoate, sodium sulfate and combinations thereof.

8. The product of claim 1 wherein the poorly water-soluble salt comprises calcium gluconate.
9. The product of claim 1 wherein the salt has a solubility in 10.degree. C. water of between about 1 and about 7%.
10. The product of claim 1 wherein the salt has a solubility in 10.degree. C. water of between about 2 and about 6%.
11. The product of claim 1 wherein the poorly water-soluble salt comprises about 0.5 to 15% of the **coating**.
12. The product of claim 1 wherein the poorly water-soluble salt comprises about 1 to 7% of the **coating**.
13. The product of claim 1 wherein the poorly water-soluble salt comprises about 1.5 to 5% of the **coating**.
14. The product of claim 1 wherein the primary **coating** material comprises about 61 to 99.5% of the **coating**.
15. The product of claim 1 wherein the primary **coating** material comprises about 75 to 98% of the **coating**.
16. The product of claim 1 wherein the product is a **chewing gum**.
17. The product of claim 1 wherein the product is a substantially sugarless **chewing gum**.
18. The product of claim 1 wherein the **coating** is a soft **coating**.
19. The product of claim 1 wherein the **coating** is a hard **coating**.
20. The **coated** product of claim 1 wherein the salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium benzoate, sodium sulfate and combinations thereof.
21. A **chewing gum** product having a **coating** made from a **coating** syrup comprising: a) a poorly water-soluble, food acceptable salt having a solubility of between about 0.5 and about 9% in 10.degree. C. water; and b) a primary **coating** material, wherein the **coating** has an improved appearance compared to a **coating** made from the same primary **coating** material but without the poorly water-soluble salt.
22. The product of claim 21 wherein a) the poorly water-soluble salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium maleate, calcium benzoate, sodium sulfate and combinations thereof; and b) the primary **coating** material is selected from the group consisting of sucrose, maltose, dextrose, xylitol, **sorbitol**, maltitol, mannitol, lactitol, **erythritol**, hydrogenated isomaltulose and combinations thereof.
23. The product of claim 21 wherein the product is a substantially sugarless **chewing gum**.
24. The product of claim 23 wherein the salt comprises calcium gluconate, and the primary **coating** material comprises xylitol.

25. The product of claim 21 wherein the poorly water-soluble salt comprises a calcium salt.
26. The product of claim 21 wherein the poorly water-soluble salt comprises a sodium salt.
27. The product of claim 21 wherein the salt has a solubility in 10.degree. C. water of between about 1 to about 7%.
28. The product of claim 21 wherein the salt has a solubility in 10.degree. C. water of between about 2 to about 6%.
29. The **coated** product of claim 21 wherein the salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium benzoate, sodium sulfate and combinations thereof.
30. A method of **coating a chewing gum** product comprising the steps of: a) providing a **chewing gum** product; and b) **coating** the product with a **coating** syrup comprising: i) a poorly water-soluble, food acceptable salt having a water solubility of between about 0.5 and about 9% in 10.degree. C. water; and ii) a primary **coating** material.
31. The method of claim 30 wherein a) the poorly water-soluble salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium maleate, calcium benzoate, sodium sulfate and combinations thereof; and b) the primary **coating** material is selected from the group consisting of sucrose, maltose, dextrose, xylitol, **sorbitol**, maltitol, mannitol, lactitol, **erythritol**, hydrogenated isomaltulose and combinations thereof.
32. The method of claim 30 wherein the product is a substantially sugarless **chewing gum**.
33. The method of claim 32 wherein the salt comprises calcium gluconate, and the primary **coating** material comprises xylitol.
34. The method of claim 30 wherein the poorly water-soluble salt comprises a calcium salt.
35. The method of claim 30 wherein the poorly water-soluble salt comprises a sodium salt.
36. The method of claim 30 wherein the salt has a solubility in 10.degree. C. water of between about 1 to about 7%.
37. The method of claim 30 wherein the salt has a solubility in 10.degree. C. water of between about 2 to about 6%.
38. The method of claim 30 wherein the salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium benzoate, sodium sulfate and combinations thereof.
39. A method of improving the appearance of a **coated chewing gum** product that is made by **coating** the product with a **coating** syrup, the improvement comprising the step of including a poorly water-soluble, food acceptable salt in the **coating** syrup, the salt having a solubility of between about 0.5 and about 9% in 10.degree. C. water.



40. The method of claim 39 wherein a) the poorly water-soluble salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium maleate, calcium benzoate, sodium sulfate and combinations thereof; and b) the **coating** syrup further comprises a primary **coating** material selected from the group consisting of sucrose, maltose, dextrose, xylitol, **sorbitol**, maltitol, mannitol, lactitol, **erythritol**, hydrogenated isomaltulose and combinations thereof.

41. The method of claim 39 wherein the product is a substantially sugarless **chewing gum**.

42. The method of claim 41 wherein the salt comprises calcium gluconate, and the primary **coating** material comprises xylitol.

43. The method of claim 39 wherein the poorly water-soluble salt comprises a calcium salt.

44. The method of claim 39 wherein the poorly water-soluble salt comprises a sodium salt.

45. The method of claim 39 wherein the salt has a solubility in 10.degree. C. water of between about 1 and about 7%.

46. The method of claim 39 wherein the salt has a solubility in 10.degree. C. water of between about 2 and about 6%.

47. The method of claim 39 wherein the salt is selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium benzoate, sodium sulfate and combinations thereof.

48. A **chewing gum coated** product having a **coating** made from a syrup comprising: a) a primary **coating** material; and b) between about 1.5 and about 5%, by weight of the syrup, of a poorly water-soluble, food acceptable salt selected from the group consisting of calcium gluconate, calcium glycerophosphate, calcium lactate, calcium phosphate, calcium malate, calcium benzoate, sodium sulfate and combinations thereof.

L8 ANSWER 7 OF 11 USPATFULL

CLM What is claimed is:

1. A **chewing gum** composition with increased stiffness to improve processability comprising: a) gum base in an amount from about 5% to about 95% of the gum composition; b) **erythritol** in an amount from about 10% to about 70% of the gum composition; c) a moisture binding agent selected from the group consisting of carboxymethyl cellulose, gum arabic, maltodextrins and polydextrose in an amount from about 0.5% to about 10% of the gum composition; and d) flavor in an amount from about 0.1% to about 10% of the gum composition.

2. The **chewing gum** composition of claim 1 containing about 2% or more water.

3. The **chewing gum** composition of claim 1 wherein the **erythritol** comprises from about 30% to about 60% of the gum composition.

4. The **chewing gum** composition of claim 1 further comprising **sorbitol** in an amount from about 5% to about 50% of

the gum composition.

5. The **chewing gum** composition of claim 1 being substantially free of sugars.

6. The **chewing gum** composition of claim 1 wherein the gum base is present in an amount of from about 10% to about 50% of the gum composition and the gum contains more than 2% moisture.

7. A method of making a **chewing gum** composition that has an increased stiffness to improve processability comprising the steps of: a) providing gum base in an amount from about 5% to about 95% of the gum composition; b) providing **erythritol** in an amount from about 10% to about 70% of the gum composition; c) providing a moisture binding agent selected from the group consisting of carboxymethyl cellulose, gum arabic, maltodextrins and polydextrose in an amount from about 0.5% to about 10% of the gum composition; d) providing flavor in an amount from about 0.1% to about 10% of the gum composition; and e) combining the gum base, **erythritol**, moisture binding agent and flavor to make the gum composition.

8. The method of claim 7 wherein the composition when combined contains about 2% or more water.

9. The method of claim 7 further comprising the step of providing **sorbitol** in an amount from about 5% to about 50% of the gum composition and combining the **sorbitol** with the gum base, **erythritol**, moisture binding agent and flavor while making the gum composition.

10. The method of claim 9 wherein the **sorbitol** is provided at least partly in syrup form.

11. The method of claim 7 wherein the **erythritol** comprises from about 30% to about 60% of the gum composition.

12. The method of claim 8 wherein the moisture binding agent is **coated** onto or agglomerated with the **erythritol** prior to mixing the **erythritol** and moisture binding agent with the gum base.

13. A **chewing gum** composition comprising: a) gum base in an amount of from about 20% to about 40% of the gum composition;  
b) **erythritol** in an amount from about 30% to about 60% of the gum composition; c) a flavoring in an amount from about 0.5% to about 3% of the gum composition; d) water in an amount from about 2% to about 5% of the gum composition; and e) a moisture binding agent selected from the group consisting of carboxymethyl cellulose, gum arabic, maltodextrins and polydextrose in an amount from about 0.5% to about 5% of the gum composition.

L8 ANSWER 8 OF 11 USPTAFULL

CLM What is claimed is:

1. A dual composition hard **coated chewing gum**, comprising: from about 35 to about 90 weight percent of a gum center, including a bulk portion, a **chewing gum** base and one or more flavoring agents; and from about 10 to about 65 weight percent of an outer **coating** containing from about 50 to about 100%, by weight, of at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**, and which comprises at least two sequential layers, each containing about 50 to about 100%, by weight, of at least one

polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; the layers constituting an inner component of the outer **coating** and an outer component of the outer **coating**; the layers of the inner component of the outer **coating** comprising at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; the layers of the outer component of the outer **coating** comprising at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; and wherein at least one polyol contained in the outer component of the outer **coating** is not present in the inner component of the outer **coating**.

2. A dual composition hard **coated chewing**

**gum** according to claim 1, wherein layers of lactitol, maltitol or hydrogenated isomaltulose, constituting the inner component of the outer **coating**, are applied before layers of **erythritol**, constituting the outer component of the outer **coating**.

3. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the gum base includes an elastomer selected from the group consisting of polyisobutylene, isobutylene-isoprene copolymer, styrene butadiene rubber, natural latexes, and combinations thereof.

4. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the gum base includes a resin selected from the group consisting of polyvinyl acetate, terpene resins, ester gums, and combinations thereof.

5. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the gum base includes fats and oils selected from the group consisting of animal fats, vegetable oils, hydrogenated vegetable oils, partially hydrogenated vegetable oils, cocoa butter, and combinations thereof.

6. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the gum base includes a wax selected from the group consisting of paraffin wax, microcrystalline wax, candelilla wax, carnauba wax, polyethylene wax, and combinations thereof.

7. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the gum base includes a filler component selected from the group consisting of calcium carbonate, magnesium carbonate, talc, dicalcium phosphate, and combinations thereof.

8. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the gum base includes a softener selected from the group consisting of glycerol monostearate, glycerol triacetate, and combinations thereof.

9. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the layers of the outer **coating** include at least about 90% polyol, by weight.

10. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the layers of the inner component include from about 50 to 100%, by weight, of at least one polyol selected from the group consisting of lactitol, maltitol and hydrogenated isomaltulose.

11. The dual composition hard **coated chewing**

**gum** of claim 1 or claim 2, wherein the layers of the inner component include at least about 90%, by weight, of at least one polyol selected from the group consisting of lactitol, maltitol and hydrogenated isomaltulose.

12. The dual composition hard **coated chewing gum** of claim 1 or claim 2, wherein the layers of the outer component include from about 50 to 100%, by weight, of **erythritol**.

13. The dual composition hard **coated chewing gum** of claim 1 or claim 2, wherein the layers of the outer component include at least about 90%, by weight, of **erythritol**

14. A dual composition hard **coated chewing gum**, comprising: from about 35 to about 90 weight percent of a gum center which includes a gum base, a bulk portion, and one or more flavoring agents; and from about 10 to about 65 weight percent of a dual composition hard outer **coating** which includes sequentially added layers, each layer comprising (a) from about 50 to 100% lactitol by weight; (b) from about 50 to 100% maltitol by weight; (c) from about 50 to 100% hydrogenated isomaltulose by weight; or (d) from about 50 to 100% **erythritol** by weight; the layers constituting an inner component of the outer **coating** and an outer component of the outer **coating**; the layers of the inner component of the outer **coating** comprising at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; the layers of the outer component of the outer **coating** comprising at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; and wherein at least one polyol contained in the outer component of the outer **coating** is not present in the inner component of the outer **coating**.

15. The dual composition hard **coated chewing gum** of claim 14, wherein the bulk portion includes a sugarless sweetener selected from the group consisting of **sorbitol**, mannitol, xylitol, hydrogenated starch hydrolysates, lactitol, maltitol, **erythritol**, hydrogenated isomaltulose, and combinations thereof.

16. The dual composition hard **coated chewing gum** of claim 14, wherein the bulk portion includes a high intensity sweetener selected from the group consisting of sucralose, aspartame, salts of acesulfame, alitame, saccharin and its salts, cyclamic acid and its salts, glycyrrhizin, dihydrochalcones, thaumatin, monellin, and combinations thereof.

17. The dual composition hard **coated chewing gum** of claim 14, wherein the gum center constitutes from about 50 to about 80 weight percent of the dual composition hard **coated chewing gum** and the outer **coating** constitutes from about 20 to about 50 weight percent of the dual composition hard **coated chewing gum**

18. The dual composition hard **coated chewing gum** of claim 14, wherein the layers of the outer **coating** each include at least about 90% of at least two polyols selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**.

19. The dual composition hard **coated chewing**

gum of claim 14, wherein the layers of the inner component include at least about 90% lactitol, maltitol or hydrogenated isomaltulose, by weight; and wherein the layers of the outer component include at least about 90% **erythritol**, by weight.

20. A method of forming a dual composition hard **coated chewing gum**, comprising the steps of: (1) forming a gum center including a bulk portion, a **chewing gum** base portion and one or more flavoring agents; (2) forming a first polyol liquid **coating** syrup comprising solvent and from about 50% to the point of saturation of at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**, by weight of the polyol liquid **coating** syrup; (3) applying a plurality of **coats** of the first polyol liquid **coating** syrup to the gum center; (4) forming a second polyol liquid **coating** syrup comprising solvent and from about 50% to the point of saturation of at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**, by weight of the polyol liquid **coating** syrup, the composition of the second polyol liquid **coating** syrup containing a different polyol than the composition of the first polyol liquid **coating** syrup; (5) applying a plurality of **coats** of the second polyol liquid **coating** syrup to the gum center which has been **coated** with the first polyol; and (6) evaporating the solvent from each **coat** of the first and second polyol liquid **coating** syrups, prior to applying the next **coat**; wherein the number of **coats** applied in steps (3) and (5) being sufficient to provide a **coating** of from about 10 to about 65 weight percent of the total **coated chewing gum** product, constituting an inner component of the outer **coating** and an outer component of the outer **coating**; the layers of the inner component of the outer **coating** comprise at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; the layers of the outer component of the outer **coating** comprise at least one polyol selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**; and wherein at least one polyol contained in the outer component of the outer **coating** is not present in the inner component of the outer **coating**.

21. The method of claim 20, wherein the first and second liquid **coating** syrups each comprise at least about 30% polyol, by weight of the respective liquid **coating** syrup.

22. The method of claim 20, wherein the liquid **coating** syrup further comprises a flavoring agent.

23. The method of claim 20, wherein the liquid **coating** syrup further comprises a whitener.

24. The method of claim 20, wherein the liquid **coating** syrup further comprises an artificial sweetener.

25. The method of claim 20, wherein the liquid **coating** syrup is applied to the **chewing gum** center by spraying.

26. The method of claim 20, wherein the solvent for the liquid **coating** syrup comprises water.

27. The method of claim 20, wherein layers of the outer **coating** include at least two polyols selected from the group consisting of lactitol, maltitol, hydrogenated isomaltulose and **erythritol**.

28. The method of one of claims 20-27, wherein layers of polyol

**coating** containing at least one polyol selected from the group consisting of lactitol, maltitol and hydrogenated isomaltulose are applied before layers of **coating** containing **erythritol**

L8 ANSWER 9 OF 11 USPTFULL

CLM What is claimed is:

1. A hard **coating** process enabling the creation of a hard **coating** on the surface of a product, comprising at least one **coating** cycle consisting essentially of applying a syrup comprising at least 90% by weight, based on its soluble dry matter, of

a

polyol selected from the group consisting of **sorbitol**, maltitol, mannitol, xylitol, **erythritol**, lactitol and isomalt; and then applying the same polyol in powder form, said polyol powder having a purity higher than 95% by weight, wherein said **coating** cycle is not followed by a forced drying.

2. A hard **coating** process according to claim 1, wherein the powder has a purity higher than 98%.

3. A hard **coating** process according to claim 2, wherein the powder has a purity higher than 99%.

4. A hard **coating** process according to claim 1, wherein the syrup is prepared from the polyol in powder form.

5. A hard **coating** process according to claim 1, wherein the syrup has a dry matter content of between 40 and 85%.

6. A hard **coating** process according to claim 1, wherein the syrup also contains 0.5 to 5% of gelatine, gum arabic or modified celluloses.

7. A hard **coating** process according to claim 6, wherein the syrup also contains 0.5 to 2% of pigments.

8. A hard **coating** process according to claim 1, wherein the powder has less than 10% of particles with a diameter over 250 microns and less than 10% of particles with a diameter under 40 microns.

9. A hard **coating** process according to claim 8, wherein the powder has an average diameter between 80 and 100 microns.

L8 ANSWER 10 OF 11 USPTFULL

CLM What is claimed is:

1. A flavor and taste composition for providing extended release flavor and taste to **chewing gum**, said composition comprising particles of a flavor and taste component **coated** with a sterol, said flavor and taste component comprising at least one flavoring agent selected from the group consisting of sugar, glucose, fructose, maltose, lactose, palatinose, oligosaccharides, **sorbitol**, mannitol, maltitol, xylitol, **erythritol**, palatinitol, reduced starch hydrolysate, stevioside, glycyrrhetin, dihydrochalcone, thaumatin, monellin, aspartame, alitame, acesulfame salt, saccharin salt, cyclaminic acid salt, citric acid, tartaric acid, malic acid, lactic acid, fumaric acid, adipic acid, glucono delta lactone, sodium chloride, potassium chloride, amino acid, peptide and food spices.

2. The flavor and taste composition for a **chewing gum** according to claim 1 wherein a weight ration of the sterol to said flavoring agent is about 99:1 to 50:50.

3. The flavor and taste composition for a **chewing gum** according to claim 2 wherein the sterol is a sterol compound having a melting point not less than 100.degree. C. and derived from animals and plants.
4. The flavor and taste composition for a **chewing gum** according to claim 3, wherein the sterol is a plant sterol.
5. The flavor and taste composition for a **chewing gum** according to claim 2 further comprising up to about 50% by weight of a softening agent selected from the group consisting of edible oils and fats, fatty acid glycerol ester, sucrose fatty acid ester, phospholipid, and wax, said softening agent being admixed with said sterol.
6. The flavor and taste composition for a **chewing gum** according to claim 1 wherein the flavoring agent is a sugar sweetener selected from the group consisting of sugar, glucose, fructose, maltose, lactose, palatinose, oligosaccharides, **sorbitol**, mannitol, maltitol, xylitol, **erythritol**, palatinitol, and reduced starch hydrolysate.
7. The flavor and taste composition for a **chewing gum** according to claim 1 wherein the flavoring agent substance is a strong sweetening substance selected from the group consisting of stevioside, glycyrrhizin, dihydrochalcone, thaumatin, monellin, aspartame, alitame, acesulfame salt, saccharin salt, and cyclaminic acid salt.
8. The flavor and taste composition for a **chewing gum** according to claim 1 wherein the flavoring agent substance is a souring agent selected from the group consisting of citric acid, tartaric acid, malic acid, lactic acid, fumaric acid, adipic acid, and glucono delta lactone.
9. The flavor and taste composition for a **chewing gum** according to claim 1 wherein the flavoring agent substance is sodium chloride and/or potassium chloride.
10. The flavor and taste composition for a **chewing gum** according to claim 1 wherein the flavoring agent substance is an amino acid and/or a peptide.
11. The flavor and taste composition for a **chewing gum** according to claim 1 wherein the flavoring agent substance is spice for food.
12. A **chewing gum** which contains the flavor and taste composition for a **chewing gum** according to claim 1.
13. The flavor and taste composition for a **chewing gum** according to claim 1, wherein said particles are dispersed in a solution of said sterol.
14. The flavor and taste composition for a **chewing gum** according to claim 1, wherein said flavoring agent is an oil and wherein said oil is adsorbed on a carrier of .beta.-cyclodextrin for form said particles.

CLM What is claimed is:

1. An encapsulated dipeptide sweetener composition with improved shelf life stability produced by the process comprising: (a) mixing a dipeptide sweetener under anhydrous conditions with at least one binding agent, a lubricity agent, and an inert material; (b) compacting said mixture into a tablet using high compression of at least 200 newtons; (c) granulating said tablets into smaller particle cores; and (d) coating said particle cores with a fat material.
2. The encapsulated sweetener composition of claim 1 wherein said dipeptide is selected from the group consisting of aspartame, alitame and mixtures thereof.
3. The encapsulated sweetener composition of claim 2 wherein said binding agent is selected from the group consisting of microcrystalline cellulose, powdered cellulose waxes, and mixtures thereof.
4. The encapsulated sweetener composition of claim 3 wherein said lubricity agent is selected from the group consisting of magnesium stearate, mineral oil, talc, zinc, stearate, calcium stearate, polyethylene glycol, stearic acid, sodium aluminosilicates and mixtures thereof.
5. The encapsulated sweetener composition of claim 4 wherein said inert material is selected from the group consisting of polyols, calcium phosphates, carbohydrates and mixtures thereof.
6. The encapsulated sweetener composition of claim 5 wherein said polyol is selected from the group consisting of mannitol, xylitol, erythritol, sorbitol and mixtures thereof.
7. The encapsulated sweetener composition of claim 6 wherein said calcium phosphate is selected from the group consisting of calcium phosphate, dicalcium phosphate, tri-calcium phosphate and mixtures thereof.
8. The encapsulated sweetener composition of claim 7 wherein said carbohydrate is selected from the group consisting of polydextrose, palatinit and mixtures thereof.
9. The encapsulated sweetener composition of claim 8 wherein said compacted granules range in size from approximately 25 to about 50 U.S. standard mesh.
10. The encapsulated sweetener composition of claim 9 wherein said dipeptide sweetener comprises approximately 5% to about 70% of the particle core by weight.
11. The encapsulated sweetener composition of claim 10 wherein said dipeptide sweetener comprises approximately 20% to about 40% of said particle core by weight.
12. The encapsulated sweetener composition of claim 11 wherein said binding agent comprises approximately 10% to about 60% by weight of said particle core.
13. The encapsulated sweetener composition of claim 12 wherein said lubricity agent comprises approximately 0.5% to about 3.0% by weight of said particle core.
14. The encapsulated sweetener composition of claim 13 wherein said



inert material comprises approximately 10% to about 50% by weight of said particle core.

15. The encapsulated sweetener composition of claim 14 wherein said particle core has a hardness of at least 200 newtons.

16. A **chewing gum** composition with improved shelf life stability and longer lasting sweetness containing the encapsulated dipeptide sweetener composition of claim 1.

17. The **chewing gum** composition of claim 16 further characterized by a flavor selected from the group consisting of cinnamon, spearmint, peppermint, fruit or mixtures thereof.

18. The **chewing gum** composition of claim 17 wherein said flavor is cinnamon.

19. A process for the preparation of an encapsulated dipeptide sweetener composition consisting of: a) mixing a dipeptide sweetener under substantially anhydrous conditions with a binding agent, a lubricity agent, and an inert material; b) compacting said mixture into a tablet using high compression of at least 200 newtons; c) granulating said tablets into smaller dense particle cores; and d) **coating** said particle cores with a fat.

20. The process of claim 17 wherein said dipeptide is selected from the group consisting of aspartame, alitame and mixtures thereof.

21. The process of claim 18 wherein said binding agent is selected from the group consisting of microcrystalline cellulose, powdered cellulose, waxes and mixtures thereof.

22. The process of claim 19 wherein said lubricity agent is selected from the group consisting of magnesium stearate, mineral oil, talc, zinc stearate, polyethylene glycol, stearic acid, sodium alumino-silicates and mixtures thereof.

23. The process of claim 22 wherein said inert material is selected from the group consisting of polyols, calcium phosphates, carbohydrates and mixtures thereof.

24. The process of claim 20 wherein said polyol is selected from the group consisting of mannitol, **sorbitol**, xylitol, **erythritol** and mixtures thereof.

25. The process of claim 24 wherein said calcium phosphate is selected from the group consisting of calcium phosphate, dicalcium phosphate, tri-calcium phosphate and mixtures thereof.

26. The process of claim 25 wherein said carbohydrate is selected from the group consisting of polydextrose, palatinit and mixtures thereof.

27. The process of claim 26 wherein said compacted granules range in size from approximately 25 to about 50 U.S. Standard mesh.

28. The process of claim 26 wherein said dipeptide sweetener comprises approximately 5% to about 70% of the particle core by weight.

29. The process of claim 27 wherein said dipeptide sweetener comprises approximately 20% to about 40% of said particle core by weight.

30. The process of claim 28 wherein said binding agent comprises

approximately 10% to about 60% by weight of said particle core.

31. The process of claim 29 wherein said lubricity agent comprises approximately 0.5% to about 3.0% by weight of said particle core.

32. The process of claim 30 wherein said polyol comprises approximately 10% to about 50% by weight of said particle core.

33. The process of claim 31 wherein said particle core has a hardness  
of  
at least 200 newtons.

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

20.68

35.83

STN INTERNATIONAL LOGOFF AT 07:07:15 ON 21 DEC 2001

AN 95(05):L0037 FSTA FS FSTA  
TI [Process for manufacture of hard dragees without sugar, and products made  
by this process.]  
AU Serpelloni, M.; Ribardeau-Dumas, G.  
CS Roquette Freres SA  
SO French Patent Application  
PI FR 2705207 A1 1994  
PRAI FR 93-05917 17 May 1993  
DT Patent (Patent)  
LA French  
AB A process for manufacture of sugar-free hard dragees is based on  
**coating** a product with a syrup containing .gtoreq.90% polyol (  
**sorbitol**, maltitol, mannitol, xylitol, **erythritol** or  
isomalt) followed by application of the same polyol (purity >90%) in  
powder form. No forced drying is needed. (AJDW)  
CC L (Sugars, Syrups and Starches)  
CT Patents; Polyols; Sugar confectionery; DRAGEES; Carbohydrates; Alcohols

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CT Patents; Polyols; Sugar confectionery; DRAGEES; Carbohydrates; Alcohols

AN 522797 FROSTI  
TI Process for **coating** edible, chewable, or pharmaceutical cones  
with a **coating**.  
IN Rosenplenter K.C.  
PA Cerestar Holding BV  
SO United States Patent  
PI US 6017567 B 20000125  
AI 19970613  
PRAI United Kingdom 19960618  
NTE 20000125  
DT Patent  
LA English  
SL English  
AB This sugar-free hard **coating** has chewable core material  
(chewing gum, candy) **coated** in a **sorbitol** syrup in a  
rotating drum. This is then **coated** again with a crystalline  
polyol consisting of at least one of the following - isomaltol, xylitol,  
**erythritol**. The two **coatings** may be repeated to obtain  
the desired thickness and crunchiness.  
CT CHEWING GUM; **COATING**; **COATINGS**; CONFECTIONERY;  
CONFECTIONERY **COATINGS**; EMULSIFIERS; HARD **COATINGS**;  
HUMECTANTS; PATENT; POLYOLS; **SORBITOL**; SUGAR CONFECTIONERY;  
SUGAR FREE **COATINGS**; SURFACTANTS; SWEETENERS; US PATENT  
DED 8 Jun 2000

AN 495994 FROSTI  
TI Manufacture of dietary fibre containing low-calorie food.  
IN Mogi K.; Kiuchi Y.  
PA Horiuchi Shokuhin Kogyo KK  
SO Japanese Patent Application  
PI JP 10248528 A 19980922  
AI 19970312  
NTE 19980922  
DT Patent  
LA Japanese  
SL English  
AB A low-calorie candy is provided for ingesting dietary fibres. The candy is obtained by forming a **coating** layer of maltitol, **erythritol**, xylitol and/or **sorbitol**, inside which powdered konnyaku is distributed and contained around the core of jelly or gummy candy.  
CT CANDY; **COATINGS**; CONFECTIONERY; DIETARY FIBRES; EMULSIFIERS; **ERYTHRITOL**; HEALTHY CONFECTIONERY; HUMECTANTS; JAPANESE PATENT; KONNYAKU; LOW CALORIE CONFECTIONERY; LOW CALORIE FOODS; MALTITOL; PATENT; POLYOLS; **SORBITOL**; SURFACTANTS; SWEETENERS; XYLITOL

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